

30, 34, 40 to 42, 44 and 48, showing the changes made thereto, is attached. Note that all claims currently pending in this application, including those not presently being amended, have been reproduced below for the Examiner's convenience.

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1. (Three Times Amended) An image pickup apparatus having a camera body and a lens unit, comprising:

- a ring member for driving the lens unit;
- detection means for detecting a change amount of a rotation of said ring member;
- control means, providing in the lens unit, for performing motion/stop control of at least the lens unit along an optical axis in accordance with a detection result by said detection means; and
- motion direction setting means, providing in the camera body, for a user to set a desired motion direction of the lens unit relative to the rotation direction of said ring member,

wherein said motion direction setting means comprises (i) a character generator, (ii) menu setting means, (iii) display means provided in said image pickup apparatus and displaying an image picked up by said image pickup apparatus, (iv) a menu function control unit for controlling said character generator in accordance with the operation state of said menu setting means operated by the user, and for displaying a predetermined menu on a display screen of the display means, and (v) setting means for selecting a desired setting item among a plurality of items displayed on the predetermined menu and setting a condition regarding the motion direction of the lens unit.

CD 5. (Amended) An image pickup apparatus according to claim 1,
wherein the lens unit includes a magnification lens, and said motion direction setting

means comprises:

an operation switch capable of being operated by a user; and

change means for changing the motion direction of the lens unit relative to the rotation direction of said ring member in accordance with the operation state of said operation switch.

6. (Amended) An image pickup apparatus according to claim 2,
wherein the lens unit is made removable relative to the camera body of the image pickup apparatus.

7. (Amended) An image pickup apparatus according to claim 3,
wherein said ring member is disposed concentrically about an optical axis of the lens unit.

8. (Amended) An image pickup apparatus according to claim 1,
wherein the lens unit includes a magnification lens, and said motion direction setting means comprises:

memory means for storing motion direction information of the lens unit relative to the rotation of said ring member, the motion direction being given by a user; and

change means for changing the motion direction of the lens unit in accordance with the motion direction information stored in said memory means.

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6. (Amended) An image pickup apparatus according to claim 5,
wherein the lens unit is made removable relative to the camera body of the image pickup
apparatus.

7. (Amended) An image pickup apparatus according to claim 6,
wherein said ring member is disposed concentrically about an optical axis of the lens unit.

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9. (Twice Amended) An image pickup apparatus according to claim 1,
wherein the lens unit is made removable relative to the camera body of the image pickup
apparatus.

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10. (Amended) An image pickup apparatus according to claim 9,
wherein said ring member is disposed concentrically about an optical axis of the lens unit.

11. (Cancelled)

12. (Cancelled)

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13. (Amended) An image pickup apparatus according to claim 1,
wherein said ring member is disposed concentrically about an optical axis of the lens unit.

cl ~~Sub D2~~ 14. (Three Times Amended) An image pickup apparatus having (i) a camera part, and (ii) a lens part, detachably mounted on the camera part, with a magnification lens and a ring member that drives the lens part, comprising:

detection means which detects a change amount of a rotation of the ring member for driving the lens part;

control means, provided in the lens part, for selecting and determining a response characteristic between an output of said detection means and a motion of the magnification lens, and for controlling motion/stop of at least the magnification lens along an optical axis in accordance with an output of said detection means;

transmitting means for performing communication between the camera part and the lens part; and

storing means, provided in said camera part, for storing information of the response characteristic transmitted from the lens part.

cl ~~Sub D2~~ 15. (Amended) An image pickup apparatus according to claim 14, wherein the plurality of characteristics of said control means includes a first characteristic for controlling a motion amount of the magnification lens per unit rotation of at least the ring member to be constant and a second characteristic for controlling a motion speed of the magnification lens to be variable in accordance with a rotation speed of the ring member.

16. (Amended) An image pickup apparatus according to claim 14, wherein the plurality of characteristics of said control means includes a first characteristic

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for controlling a motion amount of the magnification lens per unit rotation of at least the ring member to become a first predetermined amount and a second characteristic for controlling a motion amount of the magnification lens per unit rotation of the ring member to become a second predetermined amount different from the first predetermined amount.

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17. (Three Times Amended) An image pickup apparatus having (i) a camera part, and (ii) a lens part, detachably mounted on the camera part, with a magnification lens and a ring member that drives the lens part, comprising:
detection means which detects a change amount of a rotation of the ring member for driving the lens part;
control means, provided in the lens part, providing a plurality of characteristics each settable by a user for selecting and determining a response characteristic between an output of said detection means and a motion of the magnification lens, and for controlling motion/stop of at least the magnification lens along an optical axis in accordance with an output of said detection means;
transmitting means for performing communication between the camera part and the lens part; and
storing means, provided in said camera part, for storing information of the response characteristic transmitted from the lens part by said transmitting means.

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18. (Amended) An image pickup apparatus according to claim 17, wherein the plurality of characteristics of said control means includes a first characteristic for controlling a motion amount of the magnification lens per unit rotation of at least the

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ring member to be constant and a second characteristic for controlling a motion speed of the magnification lens to be variable in accordance with a rotation speed of the ring member.

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19. An image pickup apparatus according to claim 18, wherein the characteristic of said control means is changed in accordance with the state of an operation switch capable of being operated upon by a user.

20. An image pickup apparatus according to claim 18, wherein the characteristic of said control means is changed in accordance with information of the characteristic of said control means set by a user.

21. An image pickup apparatus according to claim 18, wherein the characteristic of said control means is changed in accordance with a photographing state.

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22. (Amended) An image pickup apparatus according to claim 17, wherein the plurality of characteristics of said control means includes a first characteristic for controlling a motion amount of the magnification lens per unit rotation of at least the ring member to become a first predetermined amount and a second characteristic for controlling a motion amount of the magnification lens per unit rotation of the ring member to become a second predetermined amount different from the first predetermined amount.

Sub D8 23. An image pickup apparatus according to claim 22, wherein the characteristic of said control means is changed in accordance with the state of an operation switch capable of being operated upon by a user.

24. An image pickup apparatus according to claim 22, wherein the characteristic of said control means is changed in accordance with information of the characteristic of said control means set by a user.

25. An image pickup apparatus according to claim 22, wherein the characteristic of said control means is changed in accordance with a photographing state.

Call Sub D9 26. (Three Times Amended) An image pickup apparatus having (i) an image pickup apparatus main body and (ii) a lens unit, detachably mounted on said main body, which has a magnification lens and a ring member disposed concentrically about a lens optical axis, comprising:

detection means for detecting a change amount of a rotation of the ring member disposed concentrically about the lens optical axis;

control means, provided in the lens unit, for selecting and determining a response characteristic between an output of said detection means and a motion of the magnification lens, said control means for controlling motion/stop of at least the magnification lens along the optical axis in accordance with an output of said detection means;

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transmitting means for performing communication between the main body
and the lens unit; and

outputting means for outputting information of the response characteristic
from said lens unit to storing means in said main body by said transmitting means.

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27. (Amended) An image pickup apparatus according to claim 26,
wherein the plurality of characteristics of said control means includes a first characteristic
for controlling a motion amount of the magnification lens per unit rotation of at least the
ring member to be constant and a second characteristic for controlling a motion speed of
the magnification lens to be variable in accordance with a rotation speed of the ring
member.

28. (Amended) An image pickup apparatus according to claim 26,
wherein the plurality of characteristics of said control means includes a first characteristic
for controlling a motion amount of the magnification lens per unit rotation of at least the
ring member to become a first predetermined amount and a second characteristic for
controlling a motion amount of the magnification lens per unit rotation of the ring member
to become a second predetermined amount different from the first predetermined amount.

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29. (Three Times Amended) An image pickup apparatus having (i) a
camera body, and (ii) a lens unit, detachably mounted on the camera body, which has a
magnification lens and a ring member disposed concentrically about a lens optical axis,
comprising:

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detection means for detecting a change amount of a rotation of the ring member disposed concentrically about the lens optical axis;

control means, provided in the lens unit, for selecting and determining a response characteristic between an output of said detection means and a motion of the magnification lens;

transmitting means for performing communication between the camera body and the lens unit;

setting means, provided in the camera body, for a user to set the characteristic of said control means by said transmitting means; and

outputting means for outputting information of the response characteristic from said lens unit to said camera body by said transmitting means,

wherein a motion/stop of at least the magnification lens is controlled along the optical axis in accordance with an output of said detection means.

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30. (Amended) An image pickup apparatus according to claim 29, wherein the plurality of characteristics of said control means includes a first characteristic for controlling a motion amount of the magnification lens per unit rotation of at least the ring member to be constant and a second characteristic for controlling a motion speed of the magnification lens to be variable in accordance with a rotation speed of the ring member.

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comprising:

31. An image pickup apparatus according to claim 30, further

an operation switch capable of being operated upon by a user; and
change means for changing the characteristic of said control means in
accordance with a state of said operation switch.

32. An image pickup apparatus according to claim 31, wherein said
change means changes the characteristic of said control means in accordance with
information of the characteristic of said control means set by a user.

33. An image pickup apparatus according to claim 32, wherein said
change means changes the characteristic of said control means in accordance with a
photographing state.

CB 34. (Amended) An image pickup apparatus according to claim 29,
wherein the plurality of characteristics of said control means includes a first characteristic
for controlling a motion amount of the magnification lens per unit rotation of at least the
ring member to become a first predetermined amount and a second characteristic for
controlling a motion amount of the magnification lens per unit rotation of the ring member
to become a second predetermined amount different from the first predetermined amount.

Sub D122/35. An image pickup apparatus according to claim 34, further comprising:

an operation switch capable of being operated upon by a user; and
change means for changing the characteristic of said control means in accordance with a state of said operation switch.

36. An image pickup apparatus according to claim 35, wherein said change means changes the characteristic of said control means in accordance with information of the characteristic of said control means set by a user.

37. An image pickup apparatus according to claim 36, wherein said change means changes the characteristic of said control means in accordance with a photographing state.

38. (Cancelled)

014 Sub 40. (Amended) An image pickup apparatus according to claim 14, wherein the ring member is disposed concentrically about the lens part.

41. (Amended) An image pickup apparatus according to claim 17, wherein the ring member is disposed concentrically about the lens part.

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42. (Twice Amended) An image pickup apparatus comprising:
a ring member disposed concentrically about a lens optical axis of a lens
unit;
detection means for detecting a change amount of rotation of said ring
member;
control means for performing motion/stop control of at least a magnification
lens group along the optical axis in accordance with a detection result by said detection
means; and
inhibition means for inhibiting the magnification lens to stop during a
predetermined period when said detection means detects a stop of rotation of the ring
member.

43. An image pickup apparatus according to claim 42, wherein the lens
unit is removably and exchangeably mounted on a main body of the image pickup
apparatus.

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44. (Twice Amended) An image pickup apparatus comprising:
a ring member disposed concentrically about a lens optical axis of a lens
unit;
detection means for detecting a change amount of rotation of said ring
member;

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control means for determining motion direction and speed of a magnification lens group in accordance with an output of said detection means and performing motion/stop control of the magnification lens group along the optical axis; and change means for changing a sensitivity of the motion of the magnification lens group relative to a detection result of said detection means so as to change a detection amount of said ring member to be used for motion/stop control of the magnification lens group performed by said control means.

45. An image pickup apparatus according to claim 44, wherein said lens group is removably and exchangeably mounted on a main body of the image pickup apparatus.

47. An image pickup apparatus according to claim 44, wherein said change means changes the motion speed of the magnification lens group relative to an output of said detection means.

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48. (Three Times Amended) An image pickup apparatus having a magnification lens group, comprising:
a ring member disposed concentrically about a lens optical axis;
detection means for detecting a change amount of a rotation of said ring member;